

Questions:

A. If you are mixing an unknown amount of sodium bicarbonate with an excess of acid ($\text{HCl}_{(aq)}$), what quantity could you easily record to determine the amount of sodium bicarbonate you started with?

B. What is the balanced reaction of sodium bicarbonate with $\text{HCl}_{(aq)}$?

Problem:

How much sodium bicarbonate is in an antacid tablet? How would you determine this experimentally?

You will be given a portion of an antacid tablet and an excess of HCl . You are to react the two. You must predict the amount of sodium bicarbonate that is in the **full** tablet.

Data:

What data is important BEFORE you do the experiment? Create an organized data table.

Name

Partners

Bell

Calculations:

Show calculations in detail that would provide an accurate prediction of the mass of sodium bicarbonate in a full tablet. Please calculate in milligrams.

Prediction: _____

Actual: _____

Your instructor will give you the mass of an entire tablet and the amount of sodium bicarb in the tablet at the start of the experiment. Based on your tablet amount and the experimental amount of sodium bicarb, find the percent yield ((final amount/initial amount) x 100).

Percent Yield _____

What else could have be examined to verify your findings of the initial amount of sodium bicarbonate? (What else might you be able to record..even if it takes a few more steps..)